

What is claimed is:

1. A discharge vessel or chamber for a high-intensity discharge lamp having a center body arranged providing a discharge space therein and two capillaries provided for shutting up both end openings of the center body and accepting a pair of electrodes respectively, wherein

the center body and the capillaries are made of an alumina material or an alumina-based ceramic material and the average diameter of alumina grains in the capillaries ranges from 10 micrometers to 25 micrometers.

2. A discharge vessel or chamber for a high-intensity discharge lamp according to claim 1, wherein the capillaries contain an amount of magnesium oxide, yttrium oxide, zirconium oxide, scandium oxide, lanthanum oxide, or their combination, 1.5 times greater than that of the center body.

3. A discharge vessel or chamber for a high-intensity discharge lamp according to claim 1, wherein the center body and the capillaries are made of an alumina-based composition.

4. A method of fabricating a discharge vessel or chamber for a high-intensity discharge lamp which has a center body arranged providing a discharge space therein and two capillaries provided for shutting up both end openings of the body and accepting a pair of electrodes respectively, comprising the steps of:

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forming the center body and the capillaries from an alumina material or an alumina-based ceramic material; and

sintering the center body and at least portions of the capillaries at different temperatures.

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